



## Health Alert

### Surveillance for Severe Acute Respiratory Syndrome (SARS)

March 17, 2003

The Washington State Department of Health (DOH), the Centers for Disease Control and Prevention (CDC) and the World Health Organization (WHO) are requesting heightened surveillance for persons with acute respiratory illnesses that fit the CDC case definition of Severe Acute Respiratory Syndrome (SARS):

#### **Severe Acute Respiratory Syndrome (SARS) Interim Case Definition 03/17/03 1700**

Persons with respiratory illness of unknown etiology with onset since February 1, 2003.

#### **Suspect Case:**

A person presenting with one or more signs or symptoms of respiratory illness including cough, shortness of breath, difficulty breathing, hypoxia, or radiographic findings of pneumonia or acute respiratory distress syndrome

AND fever ( $>38^{\circ}\text{C}$  [ $100.4^{\circ}\text{F}$ ])

AND one or more of the following:

Close contact\* within 10 days of onset of symptoms with a person under investigation or suspected of having SARS

**Travel within 10 days** of onset of symptoms to an area with documented transmission of SARS (see list).

Note: Suspect cases with either radiographic evidence of pneumonia or respiratory distress syndrome; or evidence of unexplained respiratory distress syndrome by autopsy are designated “probable” cases by the WHO case definition.

\* Close contact is defined as having cared for, having lived with or having had direct contact with respiratory secretions and /or body fluids of a patient suspected of having SARS.

List of areas with transmission of SARS: Hong Kong Special Administrative Region and Guangdong province, Peoples’ Republic of China; Hanoi, Vietnam; Singapore; and Toronto, Canada.

- **Patients with recent travel to areas of transmission who develop fever and acute respiratory disease syndromes should be rapidly isolated in an airborne infection isolation room with airborne and contact precautions**
- **All patients who meet the CDC case definition (see above) should be immediately reported to your local health department or DOH**

### **Reporting of suspected cases of SARS:**

In order to enhance surveillance for this illness and to detect its possible importation into Washington State, we are requesting immediate reporting of any suspected or probable cases.

**Any suspected or probable cases should be reported immediately to your local health department or to the DOH Communicable Disease Epidemiology 24-hour telephone line at 206.361.2914, or 877.534.4744.**

### **Clinical Presentation**

Early symptoms include a flu-like illness with high fever, followed by myalgias, headache, dry cough, sore throat and respiratory distress. Laboratory findings may include thrombocytopenia and leukopenia. Some patients develop hypoxia and pneumonia (often interstitial) which may progress to respiratory failure requiring mechanical ventilation. Some patients have died, others remain critically ill, and some are recovering.

The incubation period may be 1-2 days or as long as 7 (mean of 4 days). Transmission appears to be via respiratory droplets, and most secondary cases have been among healthcare workers or family members who have had direct contact with patients. Airborne or contact transmission has not been ruled out.

### **Isolation Precautions for Any Suspected or Probable Cases:**

Patients seen in an emergency department or clinic should have a surgical mask placed on them immediately and should be placed in an airborne infection isolation room, with negative pressure airflow.<sup>2</sup> Infection control and public health personnel should be immediately notified regarding the suspected case. Consultations should be requested from an infectious disease specialist.

**As secondary spread to healthcare workers has occurred in Asia, all suspected case-patients should be isolated in an airborne infection isolation room.<sup>1</sup> All staff and visitors entering the room should adhere to both airborne and contact precautions.**

Signs noting the need for airborne and contact precautions should be displayed outside patients' rooms. Staff and visitors entering the room should adhere to contact, airborne and standard precautions, and don contact and airborne personal protection equipment before entering a patient's room (i.e., disposable gloves and gowns and an N-95 or higher respirator; eye protection for all patient contact). Precautions must include careful attention to hand hygiene.

These precautions should be maintained until the etiology and route of transmission for this illness are better understood.

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<sup>1</sup> Airborne infection isolation rooms are defined as negative pressure isolation rooms with a minimum of 6-12 air exchanges per hour and direct exhaust to the outside which is located more than 25 feet from an air intake and from where people may pass (if air cannot be exhausted directly to the outside more than 25 feet from an air intake and from where people may pass, then air should be filtered through an appropriately installed and maintained HEPA filter).

### **Laboratory Testing:**

Initial diagnostic testing should include chest radiograph, pulse oximetry, complete blood counts, blood cultures, sputum Gram's stain and bacterial culture, and nasopharyngeal or throat swabs, sputum, or other respiratory specimens to test for viral respiratory pathogens (including influenza A and B and respiratory syncytial virus). If bronchoscopy, transtracheal and/or lung biopsy are performed, both fresh, frozen tissue and formalinized specimens should be obtained for testing at CDC and other reference laboratories. Fresh, frozen and formalinized tissue should also be obtained if an autopsy is performed in fatal cases.

Clinicians should save any available clinical specimens (respiratory, blood and serum) for additional testing until a specific diagnosis is made.

Your local health department or DOH will provide additional information on appropriate specimen collection at the time of consultation. We will also arrange rapid transport of these specimens to the DOH Public Health Laboratories for shipment to the CDC and other reference laboratories. Call Communicable Disease Epidemiology at 206.361.2914, or 877.539.4344

### **Treatment:**

Because the etiology of these illnesses is unknown, no specific treatment recommendations can be made at this time. Empiric therapy for community-acquired pneumonia of unclear etiology should be given, including agents with activity against both typical and atypical respiratory pathogens (*See Bartlett, et al reference below*). Treatment choices may be influenced by severity of the illness and an infectious disease consultation is recommended.

### **Travel Advisories:**

The CDC will be issuing health alerts to travelers returning from Asia. Any traveler to an area where SARS has been reported should be instructed to seek medical attention if they develop fever and respiratory symptoms.

As always, DOH appreciates the ongoing collaboration with the local public health, medical and laboratory communities in responding to emerging infectious diseases occurring in Washington State, the United States, or worldwide.

### **References**

1. Garner JS, Hospital Infection Control Practices Advisory Committee. Guideline for isolation precautions in hospitals. *Infect Control Hosp Epidemiol* 1996;17:53-80, and *Am J Infect Control* 1996;24:24-52. <http://www.cdc.gov/ncidod/hip/ISOLAT/Isolat.htm>
2. Bartlett JG, Dowell SF, Mandell LA, File Jr, TM, Musher DM, and Fine MJ. Practice Guidelines for the Management of Community-Acquired Pneumonia in Adults. *Clin Infect Dis* 2000;31:347-82. <http://www.journals.uchicago.edu/CID/journal/issues/v31n2/000441/000441.web.pdf>

For additional information on this evolving outbreak, check the following websites:

Centers for Disease Control and Prevention:	<a href="http://www.cdc.gov">http://www.cdc.gov</a>
World Health Organization	<a href="http://www.who.int/en/">http://www.who.int/en/</a>
Washington State Department of Health	<a href="http://www.doh.wa.gov">http://www.doh.wa.gov</a>